

## 4.3 TRANSPORTATION AND CIRCULATION

This section discusses the transportation impacts, circulation issues and mitigation measures associated with the proposed project. Traffic modeling and analyses were performed by AES and K. D. Anderson Transportation, and the full report is presented in **Appendix C**.

### 4.3.1 SETTING

#### *EXISTING ROADWAY SYSTEM*

**Figure 4.3-1** illustrates all the roadways in the project vicinity. A discussion of major roadways is discussed below.

*Athens Avenue* is primarily a two-lane road, which runs in an east-west direction along the south edge of the project site. It terminates at Fiddymment Road westbound and Industrial Avenue eastbound, where it is widened to four lanes and signalized. The Placer County General Plan classifies Athens Avenue as a rural arterial.

*Industrial Avenue* is a two-lane, north-south roadway that meets Athens Avenue at a signalized T-intersection east of the proposed project. It begins at Washington Boulevard in Roseville and ends at State Route (SR) 65 north of the project site. In the vicinity of the project site, Industrial Avenue runs parallel to SR 65 and adjacent to the Union Pacific Railroad tracks. It is classified as a minor arterial in the *Placer County General Plan*.

*State Route 65* (SR 65) is a north-south highway traversing Placer and Yuba Counties. SR 65 is a four-lane freeway from Interstate 80 (I-80) to the Industrial Avenue interchange. SR 65 has at-grade intersections at Sunset Boulevard (signalized), Industrial Avenue (unsignalized), Sterling Parkway (signalized), Westlake Boulevard (signalized) and a number of other roadways to the north. The *Placer County General Plan* classifies the section of SR 65 between I-80 and Industrial Avenue as a freeway and the segment north of that as an arterial.

*Sunset Boulevard* runs in the east-west direction. West of SR 65, it is a two-lane arterial that serves various industrial uses and terminates at Cincinnati Avenue. Immediately east of SR 65, it widens to a median-divided, four-lane roadway with turn lanes. East of Atherton Road, Sunset Boulevard transitions to a six-lane, median-divided roadway serving the Stanford Ranch area. Sunset Boulevard is grade-separated from the Union Pacific Railroad tracks and Industrial Avenue. The portion of Sunset Boulevard located west of SR 65 is designated as a minor arterial in the *Placer County General Plan*.

*Fiddymment Road* is a two-lane rural roadway that runs in a north-south direction to the west of the project site. It connects Roseville to the south with Lincoln to the north through other roadways. North of Blue Oaks Boulevard, Fiddymment Road has a pair of substandard curves with posted speeds of 20 miles per hour. The *Placer County General Plan* classifies Fiddymment Road as a rural arterial.

*Blue Oaks Boulevard* extends west from SR 65 to Fiddymment Road. Blue Oaks Boulevard provides access to residential areas and several large employment centers in north Roseville. This four-lane facility is grade-separated from the Union Pacific Railroad and Industrial Avenue. It is classified as a thoroughfare in the *Placer County General Plan*.

Insert **Figure 4.3-1** (Roadways in Project Vicinity)

*Baseline Road* begins at Foothills Boulevard and extends west into Sutter County where it becomes Riego Road and intersects State Route 99. West of Fiddymont Road, Baseline Road has one lane in each direction, though to the east of that point it has two westbound lanes and one eastbound lane. Baseline Road is designated an arterial in the *City of Roseville General Plan*.

*Foothills Boulevard* is a four-to-six lane major arterial in Roseville that extends north from Cirby Way and terminates about one-half mile north of Blue Oaks Boulevard. It provides access to residential developments and various employment centers in Roseville. The *City of Roseville General Plan* classifies Foothills Boulevard as an arterial.

*Atherton Road* is a two-lane, median-divided road serving the Atherton Tech Center business park. It runs generally north-south and is signalized at Sunset Boulevard.

*Stanford Ranch Road* is a four-to-six lane roadway in the study area. It intersects Sunset Boulevard at two locations within the study area: once as West Stanford Ranch Road (between Atherton Road and West Oaks Boulevard) and again farther to the east (i.e., east of Park Drive).

*Park Drive* extends as a four-lane roadway northeasterly from Sunset Boulevard to its intersection with Stanford Ranch Road. From that point, it continues as a six-lane road, narrowing to four lanes at Wyckford Boulevard.

### **TRAFFIC ANALYSIS METHODOLOGY**

This analysis was performed to assess the potential traffic impacts resulting from construction of the proposed Sunset-Athens Connector Road. The following intersectionS were identified for this analysis with the assistance of Placer County traffic engineering personnel based on their locations and potential to be affected by the project:

1. Industrial Boulevard / Athens Avenue
2. Industrial Boulevard / Placer Corporate Drive
3. Industrial Boulevard / South Loop Road
4. Sunset Boulevard / Cincinnati Avenue
5. Sunset Boulevard / Placer Corporate Drive
6. Sunset Boulevard / South Loop Road
7. Sunset Boulevard / SR-65

Existing intersection geometrics are depicted in **Figure 4.3-2**. Intersection operations were evaluated for AM and PM weekday peak hours at the study intersection using methodologies described below.

### **Level of Service Concept**

The operating conditions experienced by motorists are described as “levels of service” (LOS). Level of service is a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort, and convenience. Levels of service are designated “A” through “F” from best to worst, which cover the entire range of traffic operations that might occur. Levels of service “A” through “E” generally represent traffic volumes, congestion, and related travel time.

Insert **Figure 4.3-2** (Existing Volumes)

### ***Standards of Significance***

The significance criteria utilized for this analysis is based on Policy 2.B.1 of the Sunset Industrial Area Plan (1997), which established that LOS C is acceptable. Therefore, if the project were to cause any intersection to degrade to LOS D, E or F, it would be considered unacceptable and a significant impact. An exception is made to intersections and roadway segments within ½ mile of the state highway that allows for LOS D. In these areas, if the project were to cause any intersection or roadway segment to degrade to LOS E or F, it would be considered unacceptable and a significant impact.

### ***Signalized Intersection Analysis Methodology***

Signalized intersection analyses were conducted using methodologies outlined in the Transportation Research Board's *Highway Capacity Manual, 2000* (HCM). This procedure calculates control delay per vehicle at a signalized intersection, and assigns a level of service designation based upon the delay. The average control delay per vehicle is estimated for each lane group for all approaches and for the intersection as a whole. The control delay is defined in the Highway Capacity Manual as the portion of total delay attributed to the control facility, where the total delay is the difference between the travel time actually experienced and the reference travel time that would result during the ideal conditions. HCM 2000 signalized intersection analyses methodologies build upon methodologies as included within Transportation Research Board's Special Report 209, *1997 Highway Capacity Manual*, but include additional methodologies for estimating queue lengths. Additionally, 2000 HCM methodologies calculate both delays and v/c ratios for all movements at a signalized intersection since all movements are stopped at some time during the signal cycle. Some movements, particularly side street approaches or left turns onto side streets, may experience longer delays because they receive only a small portion of the green time during a signal cycle, but their v/c ratio may be relatively low. It is important to examine both factors before drawing conclusions about the operations. **Table 4.3-1** presents the level of service criteria for signalized intersections.

### ***Unsignalized Intersection Analysis Methodology***

Stop-controlled intersections are analyzed using the methodology outlined in the Transportation Research Board's Special Report 209, *Highway Capacity Manual, 2000*. This methodology establishes levels of service as a function of the "control delay" (in seconds) that an average driver will experience. "Control delay" includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. HCM 2000 unsignalized intersection analyses methodologies build upon methodologies included within the Transportation Research Board's Special Report 209, *1997 Highway Capacity Manual*.

Although 2000 HCM analysis does not technically establish LOS for an intersection as a whole, a calculation of the average overall delay (and corresponding LOS) for the intersection is possible. It is common practice to use the overall intersection delay and LOS since the traffic volumes for the worst movement are usually minimal compared to the overall volume at the intersection. This analysis, therefore, provides both the overall and worst case LOS at each unsignalized intersection. **Table 4.3-2**

presents the relationship of average control delay to LOS for unsignalized intersections for two-way stop-controlled intersections.

**TABLE 4.3-1  
LEVEL OF SERVICE CRITERIA - SIGNALIZED INTERSECTIONS**

Level of Service	Control Delay per Vehicle (secs)	Description
A	0 – 10.0	Very low control delay. Occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	10.1 - 20.0	Generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS "A," causing higher levels of average delay.
C	20.1 - 35.0	These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35.1 - 55.0	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55.1 - 80.0	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	> 80.0	This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Sources: *Highway Capacity Manual, 2000*, Transportation Research Board, Washington D.C., 2000.

*1997 Highway Capacity Manual*, Transportation Research Board, Special Report No. 209, Washington, D.C.

**TABLE 4.3-2  
LEVEL OF SERVICE CRITERIA - UNSIGNALIZED INTERSECTIONS**

Level of Service	Control Delay per Vehicle (Seconds)	Description
A	0 - 10.0	Little or no delay
B	10.1 - 15.0	Short traffic delay
C	15.1 - 25.0	Average traffic delays
D	25.1 - 35.0	Long traffic delays
E	35.1 - 50.0	Very long traffic delays
F	> 50.0	Extreme delays potentially affecting other traffic movements in the intersection

Source: *Highway Capacity Manual*, 2000, Transportation Research Board, Washington, D.C., 2000

### ***REGULATORY BACKGROUND***

The Placer County Congestion Management Plan (CMP) sets minimum LOS standards, transit standards, and standards for the reduction of vehicle trips in Placer County. State Route 65 is the only facility in the area that is currently included within the Placer County CMP roadway system. A number of Placer County standards apply to the project area. These standards cover the primary aspects of the transportation system (operations and design) and should be adhered to by the project. These standards include:

#### ***Level of Service (LOS) Standard***

Under the Policy 2.B.1 of the Sunset Industrial Area Plan (1997), the County has set a standard of LOS “C” or better for its urban roadway system during the p.m. peak hour. Consequently, LOS “A,” “B,” and “C” are considered acceptable, while “D,” “E,” and “F” are unacceptable. According to of the Placer County General Plan, the area within one-half mile of a state highway with a LOS “D” will be considered acceptable. State highway facilities that are included in the County’s CMP roadway system have a LOS “E” standard; this includes State Route 65 in the SIA.

#### ***Placer County Improvement Standards***

Roadway improvements within Placer County must conform to a set of standard plans that detail County standards for pavement width, lighting, drainage, sewer, and other roadside facilities. Roadway facilities associated with the proposed project must meet or exceed these standards.

#### ***Capital Improvement Program***

The Capital Improvement Program defines roadway improvements needed to serve the proposed land uses within the Sunset Industrial Area Plan through the year 2015. This program must be updated a minimum of every five years or with the approval of a significant level of development.

***Regional Bikeway Plan***

The Placer County General Plan calls for the development of a comprehensive bikeway system that would provide connections between the major urban areas of the County, with linkages to bikeway systems in other jurisdictions. The Placer County Transportation Commission [now known as the Placer County Transportation Planning Agency (PCTPA)] developed and approved a Regional Bikeway Plan in 2002, to provide guidelines for the development of a county-wide network of bicycle facilities and design standards (based on CalTrans standards) for new bicycle facilities.

***Truck Routes***

A number of roadways in unincorporated Placer County have been designated as truck routes. Any future improvements that may be made to these roadways to accommodate subsequent development under the proposed project must consider their truck route designation and design standards.

***Transit***

The Placer County General Plan promotes safe and efficient mass transit to reduce congestion, improve the environment, and provide viable non-automotive means of transportation.

***Project Consistency with the Placer County General Plan***

The proposed project includes several goals and related policies that are generally consistent with the goals and policies of the County's General Plan. These goals are related to providing a transportation system that is safe and satisfies the County's level of service policy.

***EXISTING TRAFFIC CONDITIONS***

To understand existing travel patterns and conditions, all major aspects of transportation in the area of the proposed project were analyzed. The analysis included monitoring traffic volumes and traffic levels of service, and evaluating the transit and rail systems, and bicycle and pedestrian systems. While automobiles are the primary travel mode for most trips in the vicinity of the project site, emergency vehicles, landfill trucks, the Union Pacific Railroad and limited bicycle and pedestrian facilities also serve the area.

***Existing Traffic Volumes***

To establish project impacts, traffic operations at the study intersections were analyzed during both the AM and PM peak hours. Existing (2003) peak hour turning movement volumes were collected at all of the existing study intersections during November, 2003. Existing peak hour turning movement volumes are depicted in **Figure 4.3-2**.



### Existing Intersection Operations

Intersection operations were evaluated for existing weekday AM and PM peak hour conditions, and are summarized in **Table 4.3-3**. As shown in **Table 4.3-3**, all of the study intersections were found to operate acceptably for existing weekday AM and PM peak hour conditions. Detailed level of service analysis data is provided in **Appendix C**. “Worst” refers to the leg of the intersection that has the worst delay. “All” refers to the average delay for the entire intersection.

**TABLE 4.3-3  
EXISTING INTERSECTION LEVEL OF SERVICE**

	Intersection	Control	Movement	AM Peak Hour		PM Peak Hour	
				LOS	Delay (sec)*	LOS	Delay (sec)
1)	Industrial Boulevard / Athens Avenue	Signal	All	B	13.5	B	15.2
2)	Industrial Boulevard / Placer Corporate Drive	Signal	All	B	17.2	B	16.7
3)	Industrial Boulevard / South Loop Road	Signal	All	B	14.9	B	179
4)	Sunset Boulevard / Cincinnati Avenue	Minor Stop	All	A	8.9	B	14.2
			Worst	C	19.9	C	23.3
5)	Sunset Boulevard / Placer Corporate Drive	Minor Stop	All	A	1.5	A	1.1
			Worst	A	9.5	A	8.9
6)	Sunset Boulevard / South Loop Road	Minor Stop	All	A	3.6	A	6.0
			Worst	A	9.4	B	15.0
7)	Sunset Boulevard / SR-65	Signal	All	C	23.3	D	41.4

Source: K D Anderson 2004; AES 2004

### Existing Transit System

Placer County Transit (PCT), which is operated by Placer County, provides fixed route service throughout western Placer County. The Lincoln-Sierra College route provides regular fixed route service on Highway 65 near the proposed project. This route connects to other PCT routes and CTSA Dial-A-Ride services at the Roseville Galleria.

The *Placer County General Plan* (1994) designates the portion of SR 65 between I-80 and Lincoln as a “limited access transit corridor.” This designation is associated with the potential availability of “high-capacity transit service” (operated along the Union Pacific Railroad tracks) and the availability of land to be developed with higher-density residential and employment uses under the *General Plan*. Access to transit along the corridor would be provided by widely-spaced rail stations or park-and-ride lots along freeway corridors. Further, this designation provides guidance with respect to land use and design standards to make development more accessible to transit.

### ***Existing Bicycle and Pedestrian System***

Field observations indicate that walking and bicycling activity is limited in the immediate vicinity of the project site. Athens Avenue provides some segments of sidewalks to accommodate pedestrian activity. No bike lanes are provided along this road. Although various bicycle and pedestrian facilities are located to the south of the project site (primarily in the Cities of Roseville and Rocklin), no such facilities are provided in the immediate vicinity of the proposed project. The Placer County Regional Bikeway Plan (2002) calls for a Class 2 bikeway along Industrial Avenue between its northern terminus at SR 65 and along the Foothills Boulevard extension from the City of Roseville to the City of Lincoln.

### ***Existing Rail System***

The Union Pacific Railroad tracks extend south from Lincoln into the Roseville classification yard. Within the study area, the tracks are located parallel to and approximately 100 feet west of Industrial Avenue. Although a grade-separation is provided at Sunset Boulevard, an at-grade crossing exists at Athens Avenue east of the project site. The at-grade crossing features crossing arms and flashing lights in each direction on Athens Avenue and coordinated traffic signal lighting.

According to Union Pacific Railroad officials, the projected usage of this track is 19 trains per day. All but two of those will be freight trains. Aside from the passenger trains, trains do not cross Athens Avenue on a set schedule. The maximum permitted speed on this section of track is 70 miles per hour (MPH) for passenger trains and 65 MPH for freight trains, with typical operation within 15 MPH of these maxima. Train lengths may vary from 6,000 feet to 7,000 feet. Thus, a 7,000-foot long train traveling at 60 MPH would require 80 seconds to completely cross Athens Avenue. Considering the time needed to lower the crossing arms in advance of a train and to lift the arms after the train has passed, it is reasonable to expect that a train crossing Athens Avenue at 60 MPH could stop vehicular traffic for up to two minutes. Field observations have noted up to 7-minute delays from slow-moving trains. However, not all trains passing through this at-grade crossing are traveling at 60 MPH, particularly those that have just left the Roseville classification yard. For this analysis, it is assumed that trains are traveling at 30 MPH, which will require up to 200 seconds (i.e., 3 minutes, 20 seconds) to clear the at-grade crossing (including time to lower the crossing arms prior to the arrival of the train and raise them afterward).

### ***Existing Routes Used By Emergency Vehicles and Landfill Trucks***

Existing access routes for emergency vehicles and landfill trucks in the project vicinity include Athens Avenue, Industrial Avenue, Fiddymment Road and Blue Oaks Boulevard. The project would provide a more direct route from Highway 65 to Athens Avenue, allowing emergency vehicles and traffic to the Western Regional Sanitary Landfill to utilize the existing Sunset Boulevard railroad overpass, creating safer and more efficient traffic circulation from Highway 65 to the landfill and other destinations west.

### ***EXISTING PLUS PROJECT TRAFFIC CONDITIONS***

Traffic impacts were evaluated in terms of impacts at study intersections for Existing Plus Project conditions, which are the conditions that will exist following completion of the proposed Sunset-Athens Connector Road.

#### ***Intersection Volumes***

Intersection volumes for Existing Plus Project conditions were established through use of the South Placer Traffic Model at the direction of Placer County Department of Transportation. Model generated outputs were supplemented and refined based on localized traffic distribution patterns, and information provided in recent area traffic studies (Sunset Ranchos DEIR, Auburn Rancheria Casino DEIR).

Raw PM peak hour traffic volumes from the model were adjusted based on existing PM peak hour counts, and detailed 24 hour/7 day traffic counts collected at Thunder Valley Casino driveways, and along Athens Avenue immediately east and west of the casino. AM peak hour volumes for Existing Plus Project conditions were established by establishing a factor derived by comparing AM peak hour No Project volumes to both PM peak hour No Project volumes and PM peak hour Plus Project volumes.

**Figure 4.3-3** provides a summary of the diversions that are projected to occur along the turning movements of all of the study intersections following completion of the Sunset-Athens Connector. Diversions are shown as positive numbers, negative numbers, or zeros depending on whether a turning movement would lose volumes, gain volumes, or remain the same with the connector.

Application of these diversions to Existing No Project turning volumes results in Existing Plus Project turning volumes, which are depicted in **Figure 4.3-4**.

#### ***Intersection Operations***

Intersection levels of service for Existing Plus Project conditions were calculated for each study intersection, and are summarized in **Table 4.3-4** along with a comparison to Existing No Project conditions. As shown **Table 4.3-4**, all of the study intersections are projected to continue operating acceptably under Existing Plus Project conditions, with the exception of the Sunset Boulevard/Cincinnati Avenue intersection. This intersection would operate at an overall LOS of D and a worst movement of LOS F during the PM peak hour. Detailed level of service analysis data is provided in **Appendix C**.

**Insert Figure 4.3-3**

**Insert Figure 4.3-4**

**TABLE 4.3-4  
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE**

	Intersection	Control	Movement	Existing No Project Conditions				Existing Plus Project Conditions			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)
1)	Industrial Blvd / Athens Ave	Signal	All	B	13.25	B	15.2	B	14.1	B	15.2
2)	Industrial Blvd / Placer Corporate Dr	Signal	All	B	17.2	B	16.7	B	17.6	B	15.7
3)	Industrial Blvd / South Loop Rd	Signal	All	B	14.9	B	17.9	B	16.6	C	20.2
4)	Sunset Blvd / Cincinnati Ave	Minor	All	A	8.9	B	14.2	B	14.1	D	34.0
		Stop	<i>Worst</i>	<i>C</i>	<i>19.9</i>	<i>C</i>	<i>23.3</i>	<i>F</i>	<i>57.2</i>	<i>F</i>	<i>107.7</i>
5)	Sunset Blvd / Placer Corporate Dr	Minor	All	A	1.5	A	1.1	A	1.7	A	1.5
		Stop	<i>Worst</i>	<i>A</i>	<i>9.5</i>	<i>A</i>	<i>8.9</i>	<i>B</i>	<i>10.0</i>	<i>A</i>	<i>9.4</i>
6)	Sunset Blvd / South Loop Rd	Minor	All	A	3.6	A	6.0	A	2.3	A	5.1
		Stop	<i>Worst</i>	<i>A</i>	<i>9.4</i>	<i>B</i>	<i>15.0</i>	<i>A</i>	<i>9.6</i>	<i>C</i>	<i>16.2</i>
7)	Sunset Blvd / SR-65	Signal	All	C	23.3	D	41.4	C	24.5	D	42.3
8)	Athens Ave / Sunset-Athens Connector	Minor	All	---	---	---	---	A	2.7	A	3.2
		Stop	<i>Worst</i>	---	---	---	---	<i>B</i>	<i>12.6</i>	<i>B</i>	<i>13.2</i>

Source: K D Anderson 2004; AES 2004

Although the project would degrade the LOS at certain intersections, these degradations in LOS are outweighed by the improvement made to the circulation pattern at the Athens Avenue railroad crossing. The proposed project would allow emergency vehicles and traffic to the landfill to utilize the existing Sunset Boulevard railroad overpass, creating safer and more efficient traffic circulation from Highway 65 to the Western Regional Sanitary Landfill and other destinations to the west.

### 4.3.2 IMPACTS AND MITIGATION MEASURES

The traffic impact analysis is divided into two conditions, existing (plus project) conditions and cumulative (plus project) conditions. Cumulative conditions are discussed in **Section 6.2** of this document. The environmental consequences of the proposed project under both these conditions are based on significance criteria discussed below.

***SIGNIFICANCE CRITERIA***

Significance criteria were utilized to determine the magnitude of transportation and circulation impacts of the proposed project. Impacts were considered significant if:

- The level of service is changed from acceptable levels (LOS A, B, or C) to unacceptable levels (LOS D or worse) at a surface street intersection more than one-half mile from State Route 65;
- The level of service is changed from acceptable levels (LOS A, B, C, or D) to unacceptable levels (LOS E or worse) at a surface street intersection within one-half mile of State Route 65;
- Conditions are exacerbated through an increase in the volume to capacity or level of delay at a surface street intersection that already operates at an unacceptable level of service;
- Conflicts between vehicles and Union Pacific Railroad trains at the Athens Avenue at-grade crossing are increased;
- Existing transit facilities or operations of Placer County Transit are disrupted or interfered with;
- Conflicts between vehicles and pedestrians or bicyclists are increased; or
- Existing or planned bicycle facilities as identified in the Placer County Regional Bikeway Plan (2002) are disrupted or interfered with.

Comments received on the Notice of Preparation pertaining to transportation and traffic concerns are addressed in the section below. Appendix A includes the Notice of Preparation and comment letters received as a result.

***EXISTING PLUS PROJECT IMPACT STATEMENTS AND MITIGATION MEASURES*****Impact****4.3.1 The proposed project could cause an increase in traffic in the AM or PM Peak Hour timeframe. This is a significant impact.**

The intersection of Sunset Boulevard and Cincinnati Avenue would operate at an overall LOS of D and a worst movement of LOS F during the PM Peak Hour. This intersection requires improvements to operate at an acceptable level of service under the Existing Plus Project conditions. Detailed level of service analysis data for the proposed project is provided in **Appendix C**.

**Mitigation Measures**

**4.3.1** Install signal at the Sunset Boulevard/Cincinnati Avenue intersection and reconfigure the intersection to allow for a separate left-turn lane on each approach. With this mitigation measure the intersection will operate at LOS C.

**Significance after Mitigation**

Less than significant.

**Impact**

**4.3.2** During project construction, construction-related worker trips and truck movements to and from the project site could cause traffic delays and hazards. This impact is significant.

**Mitigation Measures**

**4.3.2a** A construction plan shall be prepared and submitted with the Improvement Plans to the DPW to detail specific roadway construction information; haul routes; signing for closures or detours; and public notification identifying location, scheduling, and duration of construction activities.

**4.3.2b** Traffic routing plans shall be developed and submitted with the Improvement Plans to the DPW for specific locations that may be affected by construction. The traffic routing plan will address the specific requirements for traffic control, including construction timing for specific areas and traffic detours.

**4.3.2c** Staging Areas: Stockpiling and/or vehicle staging areas shall be identified on the Improvement Plans and located as far as practical from existing dwellings and protected resources in the area.

**4.3.2d** Submit, for review and approval, a striping and signing plan with the project Improvement Plans. The plan shall include all on- and off-site traffic control devices and shall be reviewed by the County Traffic Engineer. A construction-signing plan shall also be provided with the improvement plans for review and approval by the County Traffic Engineer.

**Significance after Mitigation**

Less than significant.